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Simple Registration Reporting

Abstract

Domain name registries and registrars report to each other by
sharing bulk information through files. This document creates two
IANA registries to create a standard reporting mechanism between
domain name registries and registrars. The first IANA registry lists
standard data elements and their syntax for inclusion in the files.
The second IANA registry lists standard reports based on the
standard data elements. Each report is a file formatted as a CSV
file. The advantage of this reporting mechanism is that reports,
each file, can be imported by recipients without any prior knowledge
of their contents, although reporting is enhanced with a minimum of
knowledge about the files. The mechanism for the transmission and
reception of the files is a matter of local policy.

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Table of Contents

1. Introduction

Currently, domain name registry operators (the producer) create and set their own domain name registration reports for use by their registrars (the consumer). Among the distinctions that vary by producers is the syntax of the data provided, e.g., date formats, and the format of the collection of the data provided, e.g., the report may be a CSV file that tends to allow for straightforward importation or a PDF file that can be problematic to import. In addition, although there are a number of best practice reports that have evolved, these are not currently documented as such, which results in a fair amount of customization on the part of the consumers to import data.

This document standardizes the name and syntax of the data elements to be used across all existing domain name registration reports and creates an IANA registry of them to facilitate their evolution, including adding additional data elements as needed. In addition, a known set of existing standard reports using the aforementioned data elements is specified in another IANA registry to facilitate the evolution of the reports and adding additional report definitions as needed.

Each report definition MUST use the data elements defined here,
including all future reports. Future reports and future data
elements may be specified in their own individual documents,
updating the IANA registries as needed.

1.1. Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
"SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this
document are to be interpreted as described in RFC 2119 [RFC2119].

2. Data Element Specification

Data elements are grouped into categories for convenience. There is
no other significance to the groupings.

Each data element conceptually represents the column heading in a
printed report. It is a single unit of information that can be
passed from the producer to the consumer. The primary purposes of
the IANA registry of data elements are to ensure that each data
element is assigned a unique name and that the syntax of each data
element is specified.

The name of the data element MUST be unique and this characteristic
MUST be enforced by registry. The name is used in the report
definition (in the next section) to alert the consumer as to what to
expect in the file and how to import the data element.

The field names MUST NOT contain any whitespace and MAY use US-ASCII
underscores (_) as a separator.

The US-ASCII comma (,) and backslash (\) are special and MUST NOT
appear in any field name or data element value. In order to include
either character it must be quoted as follows.

  *COMMA - to insert a comma precede it with a backslash thus (\,).

  *BACKSLASH - to insert a backslash precede it with a backslash
   thus (\\).

The syntax of the data element MAY be whatever is appropriate for
the information to be passed. In most cases it will be imported from
other standard specifications where the data element is already
defined for use in other protocols. In all cases the syntax
restriction mentioned above MUST be respected.

The subsections below comprise an initial list of known data
elements commonly being used between producers and consumers as of
the date of publication of this document. The title of the
subsection is the field name for the data element.

2.1. General Information Fields

2.1.1. TLD

The string of the top level domain involved that SHOULD be in A-LABEL format.

2.1.2. Server_TRID

The transaction identifier issued by EPP Server. The format MUST conform to "type:trIDStringType" as specified in RFC 5730 [RFC5730].

2.1.3. Domain

This is the domain name in EPP RFC 5731 [RFC5731] domain object and it SHOULD be in A-Label format.

2.1.4. Transaction_Type

The type of transform action made to the domain object (CREATE, DELETE, UPDATE, TRANSFER, RENEW) as specified in RFC 5730 [RFC5730] Section 2.9.3

2.1.5. Ojbect_Type

The object type involved in the report. In the EPP environment, an object could be domain RFC 5731 [RFC5731], contact RFC 5733 [RFC5733], or host RFC 5732 [RFC5732].

2.1.6. DateTime

The timestamp of the transaction recorded in the system. The date and time format follows the "type=dateTime" specification as defined in RFC 5731 [RFC5731].

2.1.7. Term

The number of unit added to the domain registration period in "domain:period" RFC 5731 [RFC5731] in create command or renew command. If there's no "domain:period", it should take the default value set by the registry.

2.1.8. Fee

The amount of money charged or returned (shown as negative value) to the registrar. The numeric format MUST conform to the currency specified below in Section 2.1.9. The format must conform to "balanceType" as defined in RFC 8748 [RFC8748]

2.1.9. Currency

The currency used in the money charged as documented above in
Section 2.1.18. It is recommended for currency code to follow [ISO
4217](ISO4217) [ISO4217]standard.

2.1.10. Status

The status of domain object. It MUST be one of the values specified
in [RFC 5731](RFC5731) [RFC5731] Section 2.3.

2.1.11. Registrar

The name of the registrar. This field is text/string with no naming
convention enforced.

2.1.12. Period

The type of time (year, month) in 'Term' described above in Section
2.1.7

2.1.13. Description

Additional information regarding the current entry in the report. It
is provided by the producer and its actual value is a matter of
local policy.

2.2. Domain Price Fields

2.2.1. Domain_Create

The fee charged to create the domain. The format must conform to
"balanceType" as defined in [draft-ietf-regext-epp-fees]

2.2.2. Domain_Renew

The fee charged to renew the domain. The format must conform to
"balanceType" as defined in [draft-ietf-regext-epp-fees]

2.2.3. Domain_Transfer

The fee charged to transfer the domain. The format must conform to
"balanceType" as defined in [draft-ietf-regext-epp-fees]

2.2.4. Domain_Restore

The fee charged to restore the domain. The format must conform to
"balanceType" as defined in [draft-ietf-regext-epp-fees]

2.3. Timestamp Fields

2.3.1. Start_Date

The timestamp of when the domain object becomes available. The date
and time format follows the "type=dateTime" specification as defined
in RFC 5731 [RFC5731].

2.3.2. Deleted_Date

The timestamp of when the domain was deleted by the end user. The
date and time format follows the "type=dateTime" specification as
defined in RFC 5731 [RFC5731].

2.3.3. RGP_Date

The timestamp of when the domain will complete its redemption grace
period. In BestPractice.domains, this is referred to as 'expired'.
The date and time format follows the "type=dateTime" specification
as defined in RFC 5731 [RFC5731].

2.3.4. Purge_Date

The timestamp of when the domain will be purged and become available
again. In BestPractice.domains, this is referred to as 'purged'. The
date and time format follows the "type=dateTime" specification as
defined in RFC 5731 [RFC5731].

2.3.5. Updated_Date

The timestamp of the last time the domain object was updated. In
BestPractice.domains, this is referred to as 'Updated'. The date and
time format follows the "type=dateTime" specification as defined in
RFC 5731 [RFC5731].

2.3.6. Create_Date

The timestamp of the domain object was allocated. The date and time
format follows the "type=dateTime" specification as defined in RFC
5731 [RFC5731].

2.3.7. Expiry_Date

The timestamp of the domain object will expire. The date and time
format follows the "type=dateTime" specification as defined in RFC
5731 [RFC5731].

2.4. Registration Information Fields

2.4.1. Registrar_ID

The identifier assigned to the registrar. If the registrar is accredited under ICANN, it MUST be the registrar's IANA ID. Otherwise it is a value known between the producer and the consumer.

2.4.2. Server_Registrant_ID

The identifier assigned to the contact object that is associated as registrant of the domain name that MUST conform to "clIDType" specified in RFC 5730 [RFC5730].

2.4.3. DNSSEC

The value MUST be either 'YES' or 'NO' to indicate whether the domain is DNSSEC signed.

2.4.4. Server_Contact_ID

The identifier of the contact object assigned by registry system.

2.4.5. Contact_Type

The value MUST be one of value as defined by "contactAttrType" in RFC 5731 [RFC5731].

2.4.6. Contact_Name

The name of the contact object. Usually it is the name of an individual or an organization as described in RFC 5733 [RFC5733] Section 2.3

2.4.7. INUSE

MUST be either "YES" or "NO" to indicate whether the contact object is associated with a domain object.

2.4.8. Nameserver_Host

The full domain name of the host object. The name MUST be in A-Label format.

2.4.9. Nameserver_IP

The IP address of the host object. The syntax of the IPv4 address MUST conform to RFC 791 [RFC0791]. The syntax of the IPv6 address MUST conform to RFC 4291 [RFC4291].

2.4.10. Client_Contact_ID

The identifier of the contact object assigned by registrar.

3. Report Definition Specification

Each report specification conceptually represents a file of comma separated values (commonly called a CSV file) where the values are selected from the data elements specified above. The first row of the file is a comma separated list of field names as specified in the data element registry. The remaining rows of the file are the unordered sets of data elements, one set per row, where each row is one transaction in the report.

Each data element conceptually represents the column heading in a printed report. The first row represents the column headings and each succeeding row represents a transaction of the report.

A consumer MUST be able to receive data elements that are not recognized and MAY skip them accordingly, both in the header row and in the transaction rows.

A report is specified in the report registry with two pieces of information. First is the name of the report. This can be whatever is appropriate as defined by the producer of the report. The name of the report MUST be unique and this characteristic MUST be enforced by registry.

Second is the ordered list of field names of what is included in the report. The field names MUST be listed in the data element registry specified above. The field names and the data MUST appear in the report in the order listed in the report registry.

The subsections below comprise an initial list of standard reports commonly being used between producers and consumers as of the data of publication of this document. The title of the subsection is the report name.

3.1. Transaction Report

Field	Reference
TLD	RFC XXXX Section 2.1.1
Server_TRID	Section 2.1.2
Domain	Section 2.1.3
DateTime	Section 2.1.6
Registrar_ID	Section 2.4.1
Registrar	Section 2.1.11
Transaction_Type	Section 2.1.4

Field	Reference
Period	Section 2.1.12
Term	Section 2.1.7
Fee	Section 2.1.8
Currency	Section 2.1.9
Description	Section 2.1.13

Table 1: Transaction Report Definition
Table

3.2. Premium Name Report

Field	Reference
TLD	RFC XXXX Section 2.1.1
Domain	Section 2.1.3
Status	Section 2.1.10
Description	Section 2.1.13
Currency	Section 2.1.9
Domain_Create	Section 2.2.1
Domain_Renew	Section 2.2.2
Domain_Transfer	Section 2.2.3
Domain_Restore	Section 2.2.4
Start_Date	Section 2.3.1

Table 2: Premium Name Report Definition
Table

3.3. Domain RGP Report

Field	Reference
TLD	RFC XXXX Section 2.1.1
Domain	Section 2.1.3
Deleted_Date	Section 2.3.2
RGP_Date	Section 2.3.3
Purge_Date	Section 2.3.4

Table 3: Domain RGP Report Definition
Table

3.4. Reserved Domain Report

Field	Reference
TLD	RFC XXXX Section 2.1.1
Domain	Section 2.1.3
Status	Section 2.1.10

Table 4: Reserved Domain Report
Definition Table

3.5. Domain Inventory Report

Field	Reference
TLD	RFC XXXX Section 2.1.1
Domain	Section 2.1.3
Updated_Date	Section 2.3.5
Registrar_ID	Section 2.4.1
Create_Date	Section 2.3.6
Expiry_Date	Section 2.3.7
Server_Registrant_ID	Section 2.4.2
DNSSEC	Section 2.4.3
Status	Section 2.1.10

Table 5: Domain Inventory Report Definition
Table

3.6. Contact Inventory Report

Field	Reference
Server_Contact_ID	Section 2.4.4
Client_Contact_ID	Section 2.4.10
TLD	Section 2.1.1
Domain	Section 2.1.3
Contact_Type	Section 2.4.5
Contact_Name	Section 2.4.6
Updated_Date	Section 2.3.5
INUSE	Section 2.4.7
Registrar_ID	Section 2.4.1

Table 6: Contact Inventory Report
Definition Table

3.7. Host Inventory Report

Field	Reference
TLD	RFCXXXX Section 2.1.1
Nameserver_Host	Section 2.4.8
Nameserver_IP	Section 2.4.9

Table 7: Host Inventory Report
Definition Table

4. Acknowledgements

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5. IANA Considerations

This document asks IANA to create two new registries. Each registry
is a first-come first-served registry.

DETAILS TO BE SPECIFIED AS THE DOCUMENT EVOLVES.

5.1. Field Definition

The field name must be unique and case insensitive.

PROPOSED FIELD NAME TABLE ENTRY. DETAILS TO BE SPECIFIED AS THE
DOCUMENT EVOLVES.

Name of field
    Enforced to be case-insensitive (if appropriate) unique

Reference document defining the field, including section number
    Should be an RFC in many cases

Registrant
    Will be IESG for initial entries

Status
    MUST be active, inactive, unknown

5.2. Report Definition

The report name must be unique and case insensitive. that any future
submission must not have the same case insensitive match with prior
entry.

    Name of report

    Document Status

    Reference (including section number)

    Registrant: IESG

    TLD: any

    Status: active

6. Security Considerations

TBD

7. Internationalization Considerations

The character encoding for the file contents MUST use UTF-8.

8. References

8.1. Normative References

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Appendix A. File Naming Convention

   TBD on file naming convention suggestion

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